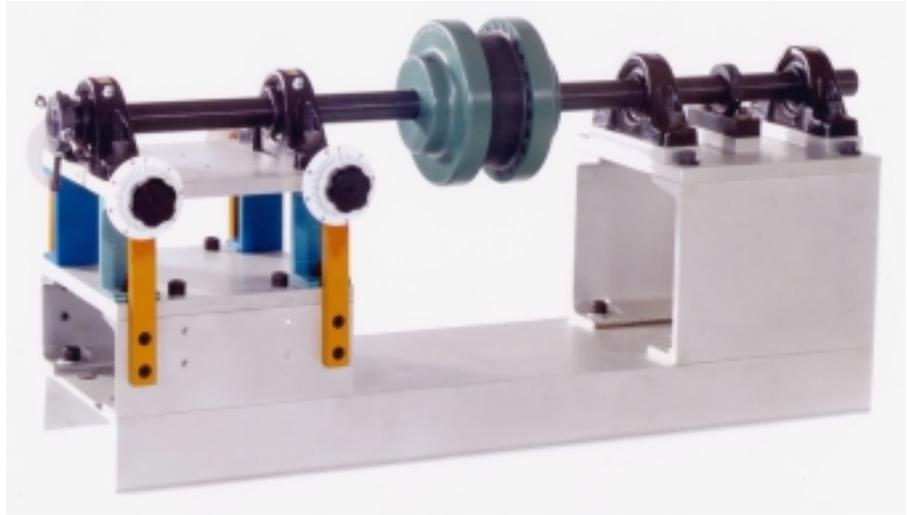


SpectraQuest introduces

The Shaft Alignment Trainer

The Ultimate Tool for Teaching Shaft Alignment



- ◆ Calibrated parallel and angular misalignment easily introduced.
- ◆ Learn to align when shafts are locked or have limited rotation.
- ◆ Learn to align when a shaft can float axially.
- ◆ Learn to recognize and correct soft and sprung foot conditions.
- ◆ Examine effects of coupling on alignment problems.
- ◆ Modular design for easy customization.
- ◆ Portable, robust, and comprehensive alignment trainer.

Misalignment is probably the most common cause of machinery malfunction. A poorly aligned machine can cost a factory 20% to 30% in machine down time, replacement parts, inventory, and energy consumption. The payback from aligning machinery to extend the operating life and optimize process conditions is very large.

At first glance it seems that aligning two mating shafts should be a simple process. In the real world, however, there are many complicating fac-

tors. For example, either one or both shafts may be locked or have limited rotation. One or both shafts may float axially. The machine may have a soft or sprung foot at one or more locations along with a soft and/or warped baseplate. The alignment positions may become bolt bound. Keeping in mind that acceptable final alignment is typically less than 2 mils, maintenance professionals often find it very challenging to attain proper alignments.

Use the SAT to learn how to recognize and validate the rules of good alignment without the limitations inherent in a factory environment.

SpectraQuest's Shaft Alignment Trainer (SAT) is the most comprehensive device on the market for shaft alignment training. It is designed for studying a wide variety of problems that can arise when two shafts are misaligned. It is a hands-on trainer for maintenance professionals. It provides a unique mechanism for studying soft and sprung foot. It is a realistic simulator with a one inch diameter shaft that fits standard couplings. Its modular design facilitates simulation of multiple element drive trains.

The SAT incorporates two modular units. One is fully adjustable; featuring horizontal jack bolts, calibrated and reference dials, and replaceable feet as depicted in the picture. The other is fundamentally fixed and simulates a non-adjustable machine. However, the shaft can be offset and axially floated. A multiple machine element drive train is obtained by combining more than two modules using a base extension kit.

Shaft Alignment Trainer Features and Benefits

The SAT system is robust, portable, and simple to use. It weighs 48 lbs. and fits on a bench-top. It is easy to transport from one place to another. The device has ample space to mount dial indicators and laser heads for alignment training. The innovative design makes it easy to extend the base to accommodate additional main modules for simulating multiple machine element trains. This can be done in both linear and perpendicular configurations.

The SAT provides a wide range of benefits in developing an understanding of alignment problems.

- ◆ Misalignment in both horizontal and vertical planes, both angular and parallel (four horizontally mounted jack bolts with calibrated dials and slotted shims for elevation).
- ◆ Practice and learn different methods of shaft alignment using dial indicators or lasers.
- ◆ Recognize and correct soft foot conditions at one through three feet.
- ◆ Practice alignment procedure when one or both shafts are locked and cannot rotate.
- ◆ Practice alignment when one or both shafts have limited rotation.
- ◆ Practice alignment when the machine is bolt bound.
- ◆ Recognize and correct sprung foot conditions, from one to four feet.
- ◆ Practice alignment with axial shaft float.
- ◆ Learn to install different types of couplings and their effects on alignment procedures.

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